UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,331	06/28/2001	Anders Hejlsberg	MS180586.1	6467

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EXAMINER
PHAM, CHRYSTINE

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/894,331	HEJLSBERG ET AL.
	Examiner	Art Unit
	Chrystine Pham	2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 June 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-5,8-12,16-20,22-24,26 and 27_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-5,8-12,16-20,22-24,26 and 27_ is/are rejected.

7)☒ Claim(s) _8, 11,12_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _24 February 2003_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to application 09/894331 filed on June 28th 2001. Claims 6, 7, 13-15,

21, 25, 28-43 have been cancelled by the Applicants. Claims 1-5, 8-12, 16-20, 22-24, 26, and 27

are presented for examination.

Specification

2.   The attempt to incorporate subject matter into this application by reference to a related copending

divisional application (see Amendments To The Specification, dated January 31st 2005, page 2

under section Cross-Reference To Related Applications) is improper because it does not include

the serial number and the filing date for the referenced application. Appropriate correction is

required.

3.   The lengthy specification has not been checked to the extent necessary to determine the

presence of all possible minor errors. Applicant's cooperation is requested in correcting any

errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

*Whoever invents or discovers any new and useful process, machine, manufacture, or
composition of matter, or any new and useful improvement thereof, may obtain a patent therefor,
subject to the conditions and requirements of this title.*

5.   Claims 1-5, 8-12, 16-20, 22-24, 26, and 27 are rejected under 35 U.S.C. 101 because the

claimed invention is directed to non-statutory subject matter.

Claim 1

Merely claimed as "a system for parsing XML, the system comprising: a scanner that parses an

XML stream ..., a reader that selectively pulls the XML item ..., a retriever that retrieves information ...", it

does not constitute a **tangible** statutory machine since all elements or features of the claimed "system"

can be implemented in software alone or done by a person as a mental step (abstract idea). Such claim

constitutes "nonfunctional descriptive material" which cannot exhibit any functional interrationship with the

way in which computing processes are performed. This type of "descriptive material" is nonstatutory

when claimed as nonfunctional descriptive material *per se*. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at

1759. Furthermore, data structures and computer programs not claimed as embodied in computer-

readable media are descriptive material *per se* and are not statutory because they are not capable of

causing functional change in the computer. Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760. MPEP

2106 (IV)(B)(1)(b)

Claims 2-5, 8-12

Claims recite nonfunctional descriptive materials, which fail to further limit the "system" of claim 1

to a **tangible** system/machine, thus are subject the same rejection as cited in claim 1.

Claim 16

Merely claimed as "a method for parsing XML ...", claim does not constitute a statutory

method/process wherein the steps of the method require the use of hardware (i.e., computer-

implemented method) to accomplish the steps. The claim is merely a manipulation of abstract ideas or

concepts, or rather, a set of instructions (program) capable of being executed by a computer, however,

without a computer needed to realize the program's functionality, the program or the instructions

themselves are not a process, thus constitute nonstatutory nonfunctional descriptive material. This type

of "descriptive material" is nonstatutory when claimed as nonfunctional descriptive material *per se*.

Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. Furthermore, data structures and computer

programs not claimed as embodied in computer-readable media are descriptive material *per se* and are

not statutory because they are not capable of causing functional change in the computer. Warmerdam,

33 F.3d at 1361, 31 USPQ2d at 1760. MPEP 2106 (IV)(B)(1)(b).

Claims 17-20, 22-24, 26

Claims recite nonfunctional descriptive materials, which fail to further limit the "method" of claim

16 to a statutory process, thus are subject the same rejection as cited in claim 16.

Claim 27

Claimed as "a computer readable medium storing computer executable instructions for a method

for parsing XML ...", it is considered nonstatutory since the claimed "medium" is not limited to **tangible**

media. The specification defines "computer readable medium" as including **intangible media** such as

carrier waves incapable of being touched or perceived absent of the tangible medium through which they

are conveyed (see Specification, dated June 28th 2001: *computer readable media, communication media*,

page 26 lines 25-26; *communication media, carrier wave* page 27 lines 2-4).

Claim Objections

6.   Claim 8 is objected to because of the following informalities: it refers to base claim 7, which has

been cancelled. Appropriate correction is required. For compact prosecution of the claims,

limitation "the system of claim 7" has been changed to --"the system of claim 1"--.

7.   Claim 11 is objected to because of the following informalities: grammatical error in the phrase "at

least **on** part" cited in line 2. The word "on" should be changed to --"in"--.

8.   Claim 12 is objected to because of the following informalities: grammatical error in the phrase

"where at least **one** of ... **are** an object". The word "are" should be changed to --"is"--.

Claim Rejections - 35 USC § 112

9.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

*The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.*

10.   Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the

invention.

        Claim 26 recites the limitation "the state machine" in line 2. There is insufficient

antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

*(e) the invention was described in (1) an application for patent, published under section 122(b),
by another filed in the United States before the invention by the applicant for patent or (2) a
patent granted on an application for patent by another filed in the United States before the
invention by the applicant for patent, except that an international application filed under the treaty
defined in section 351(a) shall have the effects for purposes of this subsection of an application
filed in the United States only if the international application designated the United States and
was published under Article 21(2) of such treaty in the English language.*

12.   Claims 1-5, 8, 10-12, 16-20, 22-24, 26, and 27 are rejected under 35 U.S.C. 102(e) as being

anticipated by Cseri et al. (US 2003/0046317), hereinafter, *Cseri et al.*.

Claim 1

        Cseri et al. teach a system (e.g., see FIG.1 & associated text;) for parsing XML (e.g., see *XML*

parser 310 FIG.2 & associated text; see *XML parser 310a* FIG.3A & associated text; see *460, 470* FIG.4B

& associated text; see *parsing, XML documents* para.[0014]), the system comprising:

   o   A scanner that parses an XML stream (e.g., see *xml 250* FIGS.3A,3B & associated text; see

        streaming access para.[0016]) to locate at least one XML token (e.g., see *tokenization*

        para.[0004]; see *tokenizing, tokens* para.[0006]; see *XML tokens* para.[0123]) associated with an

        XML item (e.g., see *elements, attributes* para.[0004]; see *tag, attribute* para.[0006]);

   o   A reader that selectively pulls the XML item from the XML stream (e.g., para.[0004]-[0005]; see

        parsing of data para.[0006]); and

   o   A retriever that retrieves information associated with the pulled XML item (e.g., see *490* FIG.4B &

associated text; see *receiving application or program* para.[0005]).

Claim 2

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach wherein the XML item is one

of a start token, an end token, markup, content, an entity reference, an external reference, an element, a

tag, a character data, an attribute, a CDATA section, a comment and a processing instruction (e.g., see

elements, attributes para.[0004]; see *XML tag* para.[0125]).

Claim 3

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach a checker that determines

whether the pulled XML item is well-formed (e.g., see *grammar, well-formed* para.[0033]; see *XHTML*

para.[0043]; see *parser, violation of XML rules* para.[0057]; see *well-formedness* para.[0058]).

Claim 4

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach a validator that determines

whether pulled XML item is valid (e.g., see *valid, DTD* para.[0035]; see *validation* para.[0042]; see

XHTML para.[0043]; see *parser, violation of XML rules* para.[0057]; see *validating parser* para.[0058]).

Claim 5

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach where the scanner facilitates

navigating a virtual node in a stream of XML nodes (e.g., see *DOM* para.[0027]-[0029]), and resolves an

external reference in the XML stream (e.g., see *DTD, pointer to a URL* para.[0058]).

Claim 8

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach where the reader selectively pulls an XML node from the stream of XML nodes based, at least in part, on data provided to the reader by a parse requestor (e.g., see *DOM* para.[0027]-[0029]).

Claim 10

The rejection of base claim 3 is incorporated. *Cseri et al.* further teach where the checker determines whether the pulled XML item is well-formed base, at least in part, on comparing the pulled XML item to one or more syntax documents (e.g., see *grammar, well-formed* para.[0033]).

Claim 11

The rejection of base claim 4 is incorporated. *Cseri et al.* further teach where the validator determines whether the pulled XML item is valid base, at least on part, on comparing the XML item to one or more DTD, schema, and external data representation documents (e.g., see *valid, XML schema, DTD* para.[0035]; see *XML Schemas, XHTML* para.[0043]; see *DTD* para.[0058]).

Claim 12

The rejection of base claim 1 is incorporated. *Cseri et al.* further teach where at least on of the scanner, the reader and the retriever is an object (e.g., see *Tokenizer 210b* FIG.4A & associated text; see *XML parser 310a, 310b* FIG.4B & associated text; see *computer-executable instructions, program modules, objects* para.[0020]).

Claim 16

Cseri et al. teach a method for parsing XML, the method comprising:

o   Instantiating a pull model parser (e.g., see *XML parser 310* FIG.2 & associated text; see *XML parser 310a* FIG.3A & associated text; see *XML parser 310b, 310* FIG.3B & associated text; (e.g., see *parser, use by any application, process, device* para.[0062]);

Cseri et al. do not expressly disclose establishing a state (i.e., initial state position) associated with the pull model parser, that is to say, having associated a state machine with the pull model parser. However, these features are deemed to be inherent in the teaching of *Cseri et al.* because a computing device or a computer where the parser resides is considered to be a state machine associated with the parser wherein each machine instruction [received from the parser code] is input that changes (i.e., updating or repositioning) one or more states (i.e., established initial state position) and may cause other actions/events to take place. Furthermore, each computer's data register stores a state. The ROM from which a boot program is loaded stores a state (the boot program itself is an initial state). The operating system is itself a state and each application (i.e., parser) that runs begins with some initial state that may change as it begins to handle input (i.e., XML stream). Thus, in view of the forgoing discussion, *Cseri et al.* clearly teach

o   Establishing a state (i.e., initial state position within the state machine), that is to say, having associated the state machine with the pull model parser (e.g., see *Receiving Device 300* FIGS.2,3A,3B & associated text; see *computing device* FIG.1 & associated text);

o   Accepting a parse request (e.g., see *parser, use by any application, process, device* para.[0062]);

o   Selectively pulling an XML item based, at least in part, on the parse request (e.g., para.[0004]-[0005]; see *parsing of data* para.[0006]); and

o   Updating the state based on the selectively pulled XML item (see above discussion).

Claims 17-20

Claims recite limitations, which have been addressed in claims 3, 10, 4, and 11 respectively, therefore, are rejected for the same reasons as cited in claims 3, 10, 4, and 11.

Claim 22

The rejection of base claim 16 is incorporated. *Cseri et al.* further teach where instantiating the pull model parser comprises:

o   Associating a stream with the pull model parser (e.g., see *XML 250* FIGS.3A,3B & associated

text); and

o   Initializing a scanner adapted to facilitate navigating within the stream (e.g., see *Tokenizer 210b*

FIG.4A & associated text; see *XML parser 310a, 310b* FIG.4B & associated text).

Claim 23

The rejection of base claim 16 is incorporated. Claim recites limitations, which have been addressed

in claim 16, therefore, is rejected for the same reasons as cited in claim 16.

Claim 24

The rejection of base claim 16 is incorporated. *Cseri et al.* further teach where selectively pulling an

XML item further comprises:

o   Positioning a virtual node over an XML node within a stream of input XML nodes (e.g., see *DOM*

para.[0027]-[0029]); and

o   Selectively extracting an XML item from the XML node over which the virtual node is positioned

(e.g., see *DOM* para.[0027]-[0029]); and

o   Resolving an external reference in the XML item (e.g., see *DTD, pointer to a URL* para.[0058]).

Claim 26

The rejection of base claim 16 is incorporated. Claim recites limitations, which have been addressed

in claim 16, therefore, is rejected for the same reasons as cited in claim 16.

Claim 27

Cseri et al. teach a computer readable medium (e.g., see FIG.1 & associated text; see *computer-*

executable instructions, program modules, devices para.[0020]) storing computer executable instructions

for a method for parsing XML, the method comprising:

o   Operably connecting a pull model parser and a state machine (see *state machine* claim 16);

o   Establishing an initial state in the state machine (see *state position* claim 16);

o   Accepting a parse request (see claim 16);

o   Selectively pulling an XML item identified in the parse request (see claim 16);

o   Maintaining the state machine in response to one or more events associated with parsing and/or

    pulling the pulled XML item (see claim 16);

o   Checking the pulled XML item to determine whether it is well-formed (e.g., see *grammar, well-*

    formed para.[0033]; see *XHTML* para.[0043]; see *parser, violation of XML rules* para.[0057]; see

    well-formedness para.[0058]); and

o   Checking the pulled XML item to determine whether it is valid (e.g., see *valid, DTD* para.[0035];

    see *validation* para.[0042]; see *XHTML* para.[0043]; see *parser, violation of XML rules*

    para.[0057]; see *validating parser* para.[0058]).

Claim Rejections - 35 USC § 103

13.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as*
> *set forth in section 102 of this title, if the differences between the subject matter sought to be*
> *patented and the prior art are such that the subject matter as a whole would have been obvious*
> *at the time the invention was made to a person having ordinary skill in the art to which said*
> *subject matter pertains. Patentability shall not be negatived by the manner in which the invention*
> *was made.*

14.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Cseri et al.* in view of

Houben et al. (US 2002/0147745), hereinafter, *Houben et al.*.

Claim 9

The rejection of base claim 1 is incorporated. *Cseri et al.* do not expressly disclose the retriever

exposes data model and/or Infoset information associated with the pulled XML item. However, *Houben et*

al. disclose a method of parsing XML (e.g., see *DOM, XML parser* para.[0015]) wherein the retriever

exposes data model and/or Infoset information associated with an XML item (e.g., see *DOM, internal data*

structure 1805, infoset para.[0055]). *Cseri et al.* and *Houben et al.* are analogous art because they are

both directed to XML parsers. It would have been obvious to one of ordinary skill in the pertinent art at

the time the invention was made to incorporate the teaching of *Houben et al.* into that of *Cseri et al.* for

the inclusion of exposing the Infoset information. And the motivation for doing so would have been to

enable manipulation of the XML document (e.g., adding and deleting nodes and leaf elements of the XML

document) by software objects (via exposed methods for operation on the infoset such as add and delete

methods) (e.g., see *add method 1815, delete method 1820* para.[0055]).
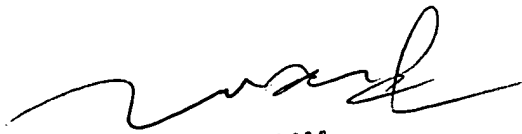

Conclusion

15.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can

normally be reached on Mon-Fri, 8:30am-5pm.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q Dam can be reached on 571-272-3695. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 16, 2005

TUAN DAM
SUPERVISORY PATENT EXAMINER